

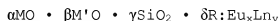
### Amendments of the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

#### Listing of Claims:

1. (previously presented) Light-storage self-luminescent glass, comprising from 0.01% to 40% by weight of a light-storage self-luminescent material activated by multiple ions and from 99.99% to 60% by weight of a matrix glass; wherein the light-storage self-luminescent material has a particle size from 0.8  $\mu$ m to 20  $\mu$ m, and the matrix glass is selected from the group consisting of sodium-calcium-silicon glass, borate glass, phosphate glass, halide glass, sulfide glass and aluminate glass.

2. (original) Light-storage self-luminescent glass according to claim 1, wherein the chemical formula of the light-storage self-luminescent material activated by multiple ions is:



wherein M is one or more selected from the group consisting of Sr, Ca, Ba and Zn;

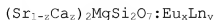
M' is one or more selected from the group consisting of Mg, Cd and Be;

R is  $B_2O_3$ ,  $P_2O_5$  or mixture thereof;

Ln is one or more selected from the group consisting of Nd, Dy, Ho, Tm, La, Pr, Tb, Ce, Er, Mn, Bi, Sn and Sb; and

$\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ , x and y are molar coefficients meeting following requirement:  $0.6 \leq \alpha \leq 6$ ;  $0 \leq \beta \leq 5$ ;  $1 \leq \gamma \leq 9$ ;  $0 \leq \delta \leq 0.7$ ;  $0.00001 \leq x \leq 0.2$ ;  $0 \leq y \leq 0.3$ .

3. (previously presented) Light-storage self-luminescent glass according to claim 2, wherein the chemical formula of the light-storage self-luminescent material activated by multiple ions is:

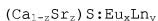


wherein Ln is one or more selected from the group consisting of La, Ce, Dy, Tm, Ho, Nd, Er, Sb and Bi;

z is a coefficient:  $0 \leq z \leq 1$ ; and

x and y are molar coefficients:  $0.0001 \leq x \leq 0.2$ ;  $0.0001 \leq y \leq 3.0$ .

4. (original) Light-storage self-luminescent glass according to claim 1, wherein the chemical formula of the light-storage self-luminescent material activated by multiple ions is:

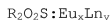


wherein Ln is one or more selected from the group consisting of Er, Dy, La, Tm and Y;

z is a coefficient:  $0 \leq z \leq 1$ ; and

x and y are molar coefficients meeting following requirement:  $0.00001 \leq x \leq 0.2$ ;  $0.00001 \leq y \leq 0.15$ .

5. (original) Light-storage self-luminescent glass according to claim 1, wherein the chemical formula of the light-storage self-luminescent material activated by multiple ions is:



wherein R is one or more selected from the group consisting of Y, La and Gd;

Ln is one or more selected from the group consisting of Er, Cr, Bi, Dy, Tm, Ti, Mg, Sr, Ca, Ba and

Mn; and

x and y are molar coefficients meeting following requirement:  $0.00001 \leq x \leq 0.2$ ;  $0.00001 \leq y \leq 0.6$ .

6. (original) Light-storage self-luminescent glass according to claim 1, wherein the chemical formula of the light-storage self-luminescent material activated by multiple ions is:

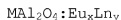


wherein M is one or more selected from the group consisting of Mg, Ca, Sr and Zn;

Ln is one or more selected from the group consisting of Nd, Dy, Ho, Tm, La, Ce, Er, Pr and Bi; and

$\alpha$ ,  $\beta$ ,  $\gamma$ , x and y are molar coefficients meeting following requirement:  $0.5 \leq \alpha \leq 6$ ;  $0.5 \leq \beta \leq 9$ ;  $0 \leq \gamma \leq 0.3$ ;  $0.00001 \leq x \leq 0.15$ ;  $0.00001 \leq y \leq 0.2$ .

7. (original) Light-storage self-luminescent glass according to claim 6, the chemical formula of the light-storage self-luminescent material is:



wherein Ln is one or more selected from the group consisting of La, Ce, Dy, Ho, Nd and Er;

M is one or more selected from the group consisting of Sr, Ca, Mg and Zn; and

x and y are molar coefficients:  $0.0001 \leq x \leq 0.15$ ;  $0.0001 \leq y \leq 0.2$ .

8. (original) Light-storage self-luminescent glass according to claim 6, wherein the chemical formula of the light-storage self-luminescent material activated by

multiple ions is:



wherein Ln is one or more selected from the group consisting of Pr, Ce, Dy, Ho, Nd and Er;

M is one or more selected from the group consisting of Sr, Ca, Mg and Zn; and

x and y are molar coefficients:  $0.0001 \leq x \leq 0.15$ ;  $0.0001 \leq y \leq 0.2$ .

9-11. (canceled)

12. (previously presented) A process for producing the light-storage self-luminescent glass according to claim 1, comprising:  
heating and melting the matrix glass;  
doping the light-storage self-luminescent material into the melted matrix glass to produce a mixture;  
and

forming the mixture at 900-1300°C.

13. (previously presented) A process for producing the light-storage self-luminescent glass according to claim 1, comprising:  
re-heating and melting a glass which has been formed and cooled; and  
doping the glass with the light-storage self-luminescent material before secondary forming.

14-15. (canceled)

16. (currently amended) Light-storage self-luminescent glass according claim 1, wherein said light-

storage self luminescent material activated by multiple ions is selected from the group consisting ~~essentially~~ of silicate, aluminate, sulfide, and any combination thereof.

17. (previously presented) Light-storage self-luminescent glass, comprising from 0.01% to 40% by weight of a light-storage self-luminescent material activated by multiple ions and from 99.99% to 60% by weight of a matrix glass; wherein the light-storage self-luminescent material has a particle size from 0.8  $\mu$ m to 2  $\mu$ m, and the matrix glass is selected from the group consisting of sodium-calcium-silicon glass, borate glass, phosphate glass, halide glass, sulfide glass and aluminate glass.

18. (previously presented) A process for producing the light-storage self-luminescent glass according to claim 17, comprising:

- heating and melting the matrix glass;
- doping the light-storage self-luminescent material into the melted matrix glass to produce a mixture;
- and
- forming the mixture at 900-1300°C.

19. (previously presented) A process for producing the light-storage self-luminescent glass according to claim 17, comprising:

- re-heating and melting a glass which has been formed and cooled; and
- doping the glass with the light-storage self-luminescent material before secondary forming.